Essroc
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July 30, 2014

Director, Air Enforcement Division
U.S. Environmental Protection Agency
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Washington, D.C. 20460

Mark Wejkszner
Air Quality Program Manager
PA Department of Environmental Protection
2 Public Square
Wilkes-Barre, PA 18711

Chief, Air Enforcement Branch
U.S. EPA Region III
1650 Arch Street (3PM52)
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George Czerniak
U.S. EPA Region V
77 W. Jackson Blvd. (AE-17J)
Chicago, IL 60604

Chief, Environmental Enforcement Section
Environment and Natural Resources Div.
U.S. Department of Justice
Box 7611 Ben Franklin Station
Washington, D.C. 20044-7611
Re: DOJ No. 90-5-2-1-09608

Puerto Rico Environmental Quality Board
Pedro Nieves Miranda, Chairman
Attn: Luis R Sierra Torres, Manager Air Quality Area
PO Box 11488
San Juan, PR 00910

Chief, Air Compliance Branch
USEPA Region 2
290 Broadway- 21st Floor
New York, NY 10007-1866

Jesse Adkins, Assistant Director,
Compliance and Enforcement Section
West Virginia Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Indiana Department of Environmental Management
Office of Air Quality
Chief, Air Compliance and Enforcement Branch
100 N. Senate Avenue
Mail Code 61-53 IGCN 1003
Indianapolis, IN 46204-2251

Re: Essroc Cement Company – Consent Decree
Civil Action No. 2:11-cv-650-DSC
Semi-Annual Report

To Whom It May Concern:

Enclosed is Essroc's Semi-Annual report for the period January 1 to June 30, 2014. Please telephone me or Philip J. Schworer (859) 817-5903, if you have any questions.

Very truly yours,

Derek Nicholls
Senior Vice President & Technical Director

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ESSROC CEMENT CORP

CONSENT DECREE

SEMI-ANNUAL REPORT

July, 2014

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I. Introduction

The Consent Decree between Essroc, U.S. EPA and Affected States (effective on February 16, 2012) calls for Essroc Cement Corp ("Essroc") to submit Semi-Annual Reports (due on January 30 and July 30) to EPA and the Affected States for three years. Thereafter, Essroc is to submit an Annual Report (due on January 30) to EPA and the Affected States. The report must include the following information:

a. Identify any and all dates on which Essroc has installed, or describe the progress of installation of, each Control Technology required for each Kiln under Section VI (NO_x Control Technology, Emission Limits, and Monitoring Requirements) and Section VII (SO_2 Control Technology, Emission Limits, and Monitoring Requirements), and describe any problems encountered or anticipated during such installation, together with implemented or proposed solutions;

b. Identify any and all dates on which Essroc has completed installation of, or describe the progress of installation of, each CEMS required under Section VI.B (NO_x Continuous Emission Monitoring Systems) and Section VII.B (SO_2 Continuous Emission Monitoring Systems), and describe any problems encountered or anticipated during such installation, together with implemented or proposed solutions;

c. Identify any and all dates on which Essroc Retired the Bessemer Kilns;

d. Provide all CEMS data collected for each Kiln, including an explanation of any periods of CEMS downtime together with any missing data for which Essroc applied missing data substitution procedures, under Section VI.B (NO_x Continuous Emission Monitoring Systems) and Section VII.B (SO_2 Continuous Emission Monitoring Systems);

e. Demonstrate compliance with all applicable 30- Day Rolling Average Emission Limits in Section VI (NO_x Control Technology, Emission Limits, and Monitoring Requirements) and Section VII (SO_2 Control Technology, Emission Limits, and Monitoring Requirements) of this Consent Decree;

f. Provide a complete description and status of all actions Essroc has undertaken to comply with the Appendix of this Consent Decree;

g. Demonstrate compliance with any applicable 30-Day Rolling Average Emission Limits established under Appendix A or B of this Consent Decree;

h. If applicable, describe the status of actions undertaken pursuant to Section IX (Prohibition on Netting Credits or Offsets from Required Controls) of this Consent Decree;

i. Describe the status of permit applications and any proposed SIP revisions required under this Consent Decree;

j. Describe the status of any operation and maintenance work relating to activities required under this Consent Decree;

Information regarding the Mitigation Projects; and

Description of any non-compliance with the requirements of this Consent Decree and an explanation of the violation's likely cause and of the remedial steps taken, or to be taken, to prevent or minimize such violation.

(Consent Decree, Paragraph 49).

The remainder of this report provides the necessary information for each of the Essroc kiln's identified in the Consent Decree: Bessemer Kiln 4, Bessemer Kiln 5, Martinsburg Kiln 1, Logansport Kiln 1, Logansport Kiln 2, Speed Kiln 1, Speed Kiln 2, Nazareth Kiln 1, and San Juan Kiln 3.

Note, Essroc previously reported that Bessemer Kiln 4 and Kiln 5 were retired in April 2009. Consequently, all Consent Decree activities have been completed for Bessemer Kiln 4 and Kiln 5. No reporting on Bessemer Kiln 4 and Kiln 5 is required by the Consent Decree in this or subsequent semi-annual reports.

II Kiln Specific Information Required by Paragraph 49 of the Consent Decree

A) Martinsburg Kiln 1

Requirements:

NOx: Achieve a 30-Day Rolling Average emission limit of 2.15 lb/ton of clinker using SNCR by December 31, 2012.

SO_2: Install Dry Scrubber technology and have in Continuous Operation by December 31, 2012. Then, determine 30-Day Rolling Average emission limit by Test & Set procedures (Appendix A), to be no higher than 1.50 lb/ton of clinker.

Status:

Paragraph 49 Reporting Requirements	Essroc's Status Report
a) Identify any and all dates on which Essroc has installed, or describe the progress of installation of, each Control Technology required for each Kiln under Section VI (NO_x Control Technology, Emission Limits, and Monitoring Requirements) and Section VII (SO_2 Control Technology, Emission Limits, and Monitoring Requirements), and describe any problems encountered or anticipated during such installation, together with implemented or proposed solutions.	NOx: Essroc achieved continuous operation of the SNCR prior to December 31, 2012. CEMS data provided in Attachment A documents that the 30-Day Rolling average emissions of NOx is less than the agreed-upon limit of 2.15 lb/ton of clinker. SO_2: Essroc achieved continuous operation of the Dry Scrubber prior to December 31, 2012. CEMS data provided in Attachment A document that the 30-Day Rolling average emissions of SO_2 is less than 1.50 lb/ton of clinker. Optimization was completed in 2013. EPA and West Virginia approved the Optimization Report and the 30-Day Rolling Average emission limit of 1.50 lb/ton of clinker on September 17, 2013. Since the previous semi-annual report, Essroc sought and received authorization to conduct tests using dry lime injection instead of the current semi-dry technology for SO_2 control. The testing occurred over the period May 14 to 17, 2014. Essroc is currently evaluating the results of the tests and will submit a report to

Paragraph 49 Reporting Requirements	Essroc's Status Report
	EPA summarizing the results and justification for requested modification(s) of the approved system, if any.
b) Identify any and all dates on which Essroc has completed installation of, or describe the progress of installation of, each **CEMS** required under Section VI.B (NO_x Continuous Emission Monitoring Systems) and Section VII.B (SO_2 Continuous Emission Monitoring Systems), and describe any problems encountered or anticipated during such installation, together with implemented or proposed solutions.	CEMS installation was completed prior to the Effective Date of the Consent Decree. Essroc installed a new data management system for the CEMS. The new system manufactured by VIM Technology uses the CEMLink 6 program. The new system has been running in parallel with the existing system, the PF Sistemi (Italian) system. Parallel data collection will confirm proper operation of the new system. Essroc continues to run both systems in parallel while the new system continues to be evaluated and verified.
c) Identify any and all dates on which Essroc retired the Bessemer Kilns.	Not applicable
d) Provide all CEMS data collected for each Kiln, including an explanation of any periods of CEMS downtime together with any missing data for which Essroc applied missing data substitution procedures, under Section VI.B (NO_x Continuous Emission Monitoring Systems) and Section VII.B (SO_2 Continuous Emission Monitoring Systems).	CEMS data is provided as Attachment A.
e) Demonstrate compliance with all applicable 30- Day Rolling Average Emission Limits in Section VI (NO_x Control Technology, Emission Limits, and Monitoring Requirements) and Section VII (SO_2 Control Technology, Emission Limits, and Monitoring Requirements) of this Consent Decree. NOx Control Technology Requirement: Achieve a 30-Day Rolling Average emission limit of 2.15 lb/ton of clinker using SNCR by December 31, 2012. SO_2 Control Technology Requirement: Install Dry Scrubber technology and	NOx: As documented by the CEMS data provided in Attachment A, the 30-Day rolling average emission rate for this reporting period was below 2.15 lb/ton of clinker. SO_2: As documented by the CEMS data provided in Attachment A, the 30-Day rolling average emission rate for this reporting was below 1.5 lb/ton of clinker.

Paragraph 49 Reporting Requirements	Essroc's Status Report
Continuously Operate by December 31, 2012. Determine emission limit by Test & Set (Appendix A), to be no higher than 1.50 lb/ton of clinker.	
f) Provide a complete description and status of all actions Essroc has undertaken to comply with the Appendix of this Consent Decree. Appendix A: Test & Set for SO_2: Baseline Data Collection Baseline Data Report: Submit Baseline Data Report (within **45 days** of completing the Baseline Data Collection)(App A, Para 7) Optimization Protocol Submit Optimization Protocol to EPA by at least **9/30/12** for approval. (Not less than 90 days prior to the commencement of optimization) (requirements for the protocol are found in App A, Para 11). Continuous Operation: by December 31, 2012. Optimization Period: Conduct in accordance with the Optimization Protocol. Shall last no longer than 150 operating days. Optimization Report : Submit a report to EPA within 30 days following completion of the Optimization Period. Demonstration Period : To commence 7 days after Essroc receives EPA's approval of the final Optimization Report. Demonstration	Optimization Protocol: Approved by EPA prior to conduction tests. Continuous Operation was achieved prior to the December 31, 2012 deadline. Optimization Period: Optimization, using the approved Optimization Protocol has been implemented. Optimization Report: The Optimization Report was submitted to EPA and the West Virginia on July 17, 2013. EPA and West Virginia approved the Optimization Report on September 17, 2013 Demonstration Period: Essroc commenced the Demonstration Period on September 25, 2013. Demonstration Report: The first report for the operations between September 25, 2013 and December 31, 2013 was submitted with the January 2014 Semi Annual report. The second report for the operations between January 1 and March 31, 2014 was submitted to EPA on May 20, 2014. The third report for the operations between April 1 and June 30, 2013 is provided with this semi-annual report as Attachment A. The Demonstration Period is authorized to last 300 Operating Days. Essroc estimates that the Demonstration Period will conclude on or about August 31, 2014.

Paragraph 49 Reporting Requirements	Essroc's Status Report
shall last 300 Operating Days. Periodic report to EPA every 3 months. Demonstration Report : To be submitted within 60 days of completing the Demonstration Period. Report must propose the 30-Day Rolling Average Emission Limit. EPA can approve the proposed limit or can establish an alternative limit. Essroc can invoke Dispute Resolution if it disagrees with the alternative limit, see Para 74 of the Consent Decree. Appendix B: Not applicable Appendix C: Mitigation Projects:	Essroc will submit the Demonstration Report to EPA on or about October 30, 2014, which is 60 days following the completion of the Demonstration Period. Appendix B: Not applicable Appendix C: Essroc completed the mitigation projects for the Martinsburg kiln as reported in the January 2014 semi annual report.
g) Demonstrate compliance with any applicable 30-Day Rolling Average Emission Limits established under Appendix A or B of this Consent Decree	In process, pursuant to Appendix A schedule, see above. As documented by the CEMS data provided in Attachment A, the 30-Day rolling average NOx emission rate is below 2.15 lb/ton of clinker. EPA and West Virginia approved the the optimized SO_2 emission rate of 1.5 lbs/ton of clinker.
h) If applicable, describe the status of actions undertaken pursuant to Section IX (Prohibition on Netting Credits or Offsets from Required Controls) of this Consent Decree	Not applicable
i) Describe the status of permit applications and any proposed SIP revisions required under this Consent Decree	Essroc submitted application for a Class II Administrative Update permit on April 8, 2014.
j) Describe the status of any operation and maintenance work relating to activities required under this Consent Decree	Not applicable

Paragraph 49 Reporting Requirements	Essroc's Status Report
Description of any non-compliance with the requirements of this Consent Decree and an explanation of the violation's likely cause and of the remedial steps taken, or to be taken, to prevent or minimize such violation.	Not applicable

B) Logansport Kiln 1

Requirements:

NOx: Conduct an SCR Pilot Study (to run a minimum of 4 months) in accordance with Appendix B. Submit the SCR Pilot Report by July 31, 2013 with results of the SCR Pilot Study. Following approval by U.S. EPA: if SCR works, install a full-scale system by September 30, 2014, continuously operate by December 31, 2014, and conduct an SCR Demonstration Period to establish an emission limit by the Test & Set procedures found in Appendix B; if SCR does not work, install SNCR and propose a Test & Set limit under Appendix A that is no less stringent than 7.00 lb/ton of clinker by December 31, 2014.

SO_2: Achieve emission limit of 3.50 lb/ton of clinker using a Dry Scrubber by December 31, 2013.

Status:

Paragraph 49 Reporting Requirements	Essroc's Status Report
a. Identify any and all dates on which Essroc has installed, or describe the progress of installation of, each **Control Technology** required for each Kiln under Section VI (NO_x Control Technology, Emission Limits, and Monitoring Requirements) and Section VII (SO_2 Control Technology, Emission Limits, and Monitoring Requirements), and describe any problems encountered or anticipated during such installation, together with implemented or proposed solutions.	NOx: In process, see below regarding status of the SCR Pilot Study. SO2: The Dry Scrubber was installed on December 26, 2013.
b. Identify any and all dates on which Essroc has completed installation of, or describe the progress of installation of, each **CEMS** required under Section VI.B (NO_x Continuous Emission Monitoring Systems) and Section VII.B (SO_2 Continuous Emission Monitoring Systems), and describe any problems encountered or anticipated during such installation, together with implemented or proposed solutions.	CEMS installation was completed prior to the Effective Date of the Consent Decree. CEMS data is provided as Attachment B.

Paragraph 49 Reporting Requirements	Essroc's Status Report
c. Identify any and all dates on which Essroc Retired the Bessemer Kilns	Not applicable.
d. Provide all CEMS data collected for each Kiln, including an explanation of any periods of CEMS downtime together with any missing data for which Essroc applied missing data substitution procedures, under Section VI.B (NO_x Continuous Emission Monitoring Systems) and Section VII.B (SO_2 Continuous Emission Monitoring Systems).	See attached.
e. Demonstrate compliance with all applicable 30- Day Rolling Average Emission Limits in Section VI (NO_x Control Technology, Emission Limits, and Monitoring Requirements) and Section VII (SO_2 Control Technology, Emission Limits, and Monitoring Requirements) of this Consent Decree.	In process, see below regarding status.
f. Provide a complete description and status of all actions Essroc has undertaken to comply with the Appendix of this Consent Decree <u>Appendix A</u>: Applicable only if SNCR is used because the SCR Pilot Study was deemed not successful. <u>Appendix B</u>: for SCR pilot study and potential full-scale demonstration. SCR Pilot Study: Essroc will design a study in accordance with the Pilot Study requirements found in Appendix B. The pilot scale SCR shall operate for a minimum of 4 months. SCR Pilot Study Report: Shall contain all of the information identified in Appendix B and be submitted to EPA by July 31, 2013. Continuous Operation: If EPA approves the Pilot Study Report and SCR is feasible, Essroc will install and continuously operate SCR by September 30, 2014. If EPA concurs that SCR is not feasible, Essroc will install and	<u>Appendix A</u>: Not applicable until SCR is determined to be unworkable. <u>Appendix B</u>: The SCR Pilot Study equipment was delivered to the site in January 2013. The SCR Pilot study was conducted between January and July 2013. The SCR Pilot Study Report was submitted to EPA and IDEM prior to the July 31, 2013 agreed date. Essroc concluded that the SCR Pilot Study was not successful and that SCR technology is not a feasible alternative for the Logansport kilns. EPA disapproved the SCR Pilot Study Report. Essroc invoked informal dispute resolution provided for by the Consent Decree. Essroc and EPA participated in informal dispute resolution, but were unable to come to agreement.

Paragraph 49 Reporting Requirements	Essroc's Status Report
continuously operate SNCR by September 30, 2014. SCR Demonstration Period: shall commence by December 31, 2014, span at least 140 operating days, and satisfy the requirements of Appendix B. SCR Demonstration Report: To identify a proposed 40-Day Rolling Average Emission Limit for NOx. SNCR Install: If SNCR is installed, Essroc shall propose a 30-Day Rolling Average Emission Limit for NOx by December 31, 2014. Appendix C: Not applicable.	Essroc invoked formal dispute resolution on May 16, 2014. By agreement of the parties, EPA's response will be provided to Essroc on August 4, 2014. If the dispute is not resolved, the Consent Decree provides that Essroc shall file a motion with the federal court. The September 30, 2014 date will not be met for installation of SCR or SNCR. The date is predicated on EPA's approval of the SCR Pilot Study report. As discussed above, EPA has disapproved the SCR Pilot Study report and Essroc has invoked formal dispute resolution.
g. Demonstrate compliance with any applicable 30-Day Rolling Average Emission Limits established under Appendix A or B of this Consent Decree.	In process.
h. If applicable, describe the status of actions undertaken pursuant to Section IX (Prohibition on Netting Credits or Offsets from Required Controls) of this Consent Decree.	Not applicable.
i. Describe the status of permit applications and any proposed SIP revisions required under this Consent Decree. • Application to include the Dry Scrubber and SO_2 emission limit in the Title V permit must be filed on or before December 31, 2014 (one year after the control technology is installed). • Application to include the NOx control technology will occur up to one year follow installation, optimization and demonstration of the control technology.	Not applicable at this time.

Paragraph 49 Reporting Requirements	Essroc's Status Report
j. Describe the status of any operation and maintenance work relating to activities required under this Consent Decree.	Not applicable at this time.
Description of any non-compliance with the requirements of this Consent Decree and an explanation of the violation's likely cause and of the remedial steps taken, or to be taken, to prevent or minimize such violation.	Not applicable.

C) Logansport Kiln 2

Kiln was restarted on February 26, 2013. Notice of restart was provided to EPA and IDEM on March 19, 2013.

Requirements:

NOx: If SCR is installed on Logansport Kiln 1, Essroc shall install SCR on Logansport Kiln 2 by September 30, 2015. Emission limit to be established by Test & Set. If SNCR is installed on Logansport Kiln 1, Essroc shall install SNCR jon Logansport Kiln 2 by September 30, 2015. Emission limit to be established by Test & Set, and must be below 7.00 lb/ton of clinker.

SO_2: Achieve emission limit of 4.80 lb/ton of clinker using a Dry Scrubber by December 31, 2014.

Status:

Paragraph 49 Reporting Requirements	Essroc's Status Report
a. Identify any and all dates on which Essroc has installed, or describe the progress of installation of, each Control Technology required for each Kiln under Section VI (NO_x Control Technology, Emission Limits, and Monitoring Requirements) and Section VII (SO_2 Control Technology, Emission Limits, and Monitoring Requirements), and describe any problems encountered or anticipated during such installation, together with implemented or proposed solutions.	NOx: Direction will depend upon the results of the SCR Pilot Study that was conducted on Logansport Kiln 1. SO2: In process to achieve installation and operation of Dry Scrubber by December 31, 2014 if kiln operations are recommenced.
b. Identify any and all dates on which Essroc has completed installation of, or describe the progress of installation of, each CEMS required under Section VI.B (NO_x Continuous Emission Monitoring Systems) and Section VII.B (SO_2 Continuous Emission Monitoring Systems), and describe any problems encountered or anticipated during such installation, together with implemented or proposed solutions.	CEMS installation was completed prior to the Effective Date of the Consent Decree. CEMS data is provided as Attachment C.
c. Identify any and all dates on which Essroc Retired the Bessemer Kilns.	Not applicable.

Paragraph 49 Reporting Requirements	Essroc's Status Report
d. Provide all CEMS data collected for each Kiln, including an explanation of any periods of CEMS downtime together with any missing data for which Essroc applied missing data substitution procedures, under Section VI.B (NO_x Continuous Emission Monitoring Systems) and Section VII.B (SO_2 Continuous Emission Monitoring Systems).	CEMS data provided as Attachment C.
e. Demonstrate compliance with all applicable 30- Day Rolling Average Emission Limits in Section VI (NO_x Control Technology, Emission Limits, and Monitoring Requirements) and Section VII (SO_2 Control Technology, Emission Limits, and Monitoring Requirements) of this Consent Decree.	Not applicable at this time.
f. Provide a complete description and status of all actions Essroc has undertaken to comply with the Appendix of this Consent Decree. Appendix A: If applicable, install SNCR by September 30, 2015. (Applicable if SNCR is used because the SCR was deemed not successful during the Kiln 1 SCR Pilot Study.) Propose a 30-Day Rolling Average Emission Limit by December 31, 2015. Appendix B: If feasible, install and Continuously Operate SCR by September 30, 2015. Conduct Demonstration Period and propose a 30-Day Rolling Average Emission Limit by May 31, 2016. Appendix C: Not applicable.	Installation of SCR or SNCR will depend upon the resolution of the formal dispute.
g. Demonstrate compliance with any applicable 30-Day Rolling Average Emission Limits established under Appendix A or B of this Consent Decree.	Not applicable at this time.
h. If applicable, describe the status of actions undertaken pursuant to Section IX (Prohibition on Netting Credits or Offsets from Required	Not applicable.

Paragraph 49 Reporting Requirements	Essroc's Status Report
Controls) of this Consent Decree.	
i. Describe the status of permit applications and any proposed SIP revisions required under this Consent Decree. • Application to include the Dry Scrubber and SO_2 emission limit in the Title V permit must be filed on or before December 31, 2015 (one year after the control technology is installed). • Application to include the NOx control technology will follow up to one year following installation, optimization and demonstration of the control technology.	To be completed at a future date.
j. Describe the status of any operation and maintenance work relating to activities required under this Consent Decree.	Not applicable.
Information regarding the Mitigation Projects.	Not applicable.
Description of any non-compliance with the requirements of this Consent Decree and an explanation of the violation's likely cause and of the remedial steps taken, or to be taken, to prevent or minimize such violation.	Not applicable.

D) Speed Kiln 1

This kiln went into Temporary Cessation on February 16, 2012. Essroc briefly operated the kiln in June and July 2013 and then returned the kiln to Temporary Cessation status. If the kiln is restarted after December 31, 2013, it will be restarted with SNCR and Dry Scrubber technology. The kiln was not operated over the period January 1 through June 30, 2014.

Requirements:

NOx: Achieve a 30-Day Rolling Average emission limit of 3.50 lb/ton of clinker using SNCR by December 31, 2013.

SO_2: Achieve a 30-Day Rolling Average emission limit of 1.00 lb/ton of clinker (including the alkali bypass) using a Dry Scrubber by December 31, 2013.

Status:

Paragraph 49 Reporting Requirements	Essroc's Status Report
a. Identify any and all dates on which Essroc has installed, or describe the progress of installation of, each **Control Technology** required for each Kiln under Section VI (NO_x Control Technology, Emission Limits, and Monitoring Requirements) and Section VII (SO_2 Control Technology, Emission Limits, and Monitoring Requirements), and describe any problems encountered or anticipated during such installation, together with implemented or proposed solutions.	As provided by Paragraph 31 of the Consent Decree, if the kiln is brought back into operation on or after December 31, 2013, the kiln will have SNCR and Dry Scrubber technology installed and operating to meet the applicable 30-Day Rolling Average emission limits.
b. Identify any and all dates on which Essroc has completed installation of, or describe the progress of installation of, each **CEMS** required under Section VI.B (NO_x Continuous Emission Monitoring Systems) and Section VII.B (SO_2 Continuous Emission Monitoring Systems), and describe any problems encountered or anticipated during such installation, together with implemented or proposed solutions.	Kiln currently in Temporary Cessation.
c. Identify any and all dates on which Essroc Retired the Bessemer Kilns.	Not applicable.

Paragraph 49 Reporting Requirements	Essroc's Status Report
d. Provide all CEMS data collected for each Kiln, including an explanation of any periods of CEMS downtime together with any missing data for which Essroc applied missing data substitution procedures, under Section VI.B (NO_x Continuous Emission Monitoring Systems) and Section VII.B (SO_2 Continuous Emission Monitoring Systems).	Not applicable. Kiln in Temporary Cessation.
e. Demonstrate compliance with all applicable 30- Day Rolling Average Emission Limits in Section VI (NO_x Control Technology, Emission Limits, and Monitoring Requirements) and Section VII (SO_2 Control Technology, Emission Limits, and Monitoring Requirements) of this Consent Decree.	Kiln in Temporary Cessation.
f. Provide a complete description and status of all actions Essroc has undertaken to comply with the Appendix of this Consent Decree. Appendix A: Not applicable Appendix B: Not applicable Appendix C: Speed plant mitigation project:	 Appendix A: Not applicable Appendix B: Not applicable Appendix C: The Speed plant mitigation project was completed on or before December 31, 2012 as reported in previous semi-annual reports.
g. Demonstrate compliance with any applicable 30-Day Rolling Average Emission Limits established under Appendix A or B of this Consent Decree.	Not applicable.
h. If applicable, describe the status of actions undertaken pursuant to Section IX (Prohibition on Netting Credits or Offsets from Required Controls) of this Consent Decree.	Not applicable.
i. Describe the status of permit applications and any proposed SIP revisions required under this Consent Decree. Application to include the control technologies and emission limit will be submitted no more	To be completed at a future date.

Paragraph 49 Reporting Requirements	Essroc's Status Report
than one year following restart as discussed above.	
j. Describe the status of any operation and maintenance work relating to activities required under this Consent Decree.	Not applicable.
Description of any non-compliance with the requirements of this Consent Decree and an explanation of the violation's likely cause and of the remedial steps taken, or to be taken, to prevent or minimize such violation.	Not applicable.

E) Speed Kiln 2

Requirements:

NOx: Achieve a 30-Day Rolling Average emission limit of 2.10 lb/ton of clinker using SNCR by December 31, 2012.

SO_2 : Achieve emission limit no higher than 1.70 lb/ton of clinker (including the alkali bypass) using a Dry Scrubber by December 31, 2013.

Status:

Paragraph 49 Reporting Requirements	Essroc's Status Report
a. Identify any and all dates on which Essroc has installed, or describe the progress of installation of, each Control Technology required for each Kiln under Section VI (NO_x Control Technology, Emission Limits, and Monitoring Requirements) and Section VII (SO_2 Control Technology, Emission Limits, and Monitoring Requirements), and describe any problems encountered or anticipated during such installation, together with implemented or proposed solutions.	NOx: Essroc achieved continuous operation of the SNCR prior to December 31, 2012. CEMS data provided in Attachment E document that the 30-Day Rolling average emissions of NOx is less than the agreed-upon limit of 2.10 lb/ton of clinker. SO2: Construction of the Dry Scrubber was completed prior to December 31, 2013.
b. Identify any and all dates on which Essroc has completed installation of, or describe the progress of installation of, each CEMS required under Section VI.B (NO_x Continuous Emission Monitoring Systems) and Section VII.B (SO_2 Continuous Emission Monitoring Systems), and describe any problems encountered or anticipated during such installation, together with implemented or proposed solutions.	CEMS installation was completed prior to the Effective Date of the Consent Decree. CEMS data is provided as Attachment E.
c. Identify any and all dates on which Essroc Retired the Bessemer Kilns.	Not applicable.
d. Provide all CEMS data collected for each Kiln, including an explanation of any periods of CEMS downtime together with any missing data for which Essroc applied missing data substitution procedures, under Section VI.B (NO_x Continuous Emission Monitoring	See Attachment E for the CEMS data summary.

Paragraph 49 Reporting Requirements	Essroc's Status Report
Systems) and Section VII.B (SO_2 Continuous Emission Monitoring Systems).	
e. Demonstrate compliance with all applicable 30- Day Rolling Average Emission Limits in Section VI (NO_x Control Technology, Emission Limits, and Monitoring Requirements) and Section VII (SO_2 Control Technology, Emission Limits, and Monitoring Requirements) of this Consent Decree.	NOx: Compliance with the Emission Limit is demonstrated with the 30-day rolling average emission rate commencing on December 31, 2012. See Attachment E. SO2: Compliance with the Emission Limit is demonstrated with 30-day rolling average emission rate prior to December 31, 2013. See Attachment E.
f. Provide a complete description and status of all actions Essroc has undertaken to comply with the Appendix of this Consent Decree Appendix A: Not applicable. Appendix B: Not applicable. Appendix C: Speed mitigation project:	 Appendix A: Not applicable. Appendix B: Not applicable. Appendix C: The Speed mitigation project was completed on or before December 31, 2012 as reported in previous semi-annual reports.
g. Demonstrate compliance with any applicable 30-Day Rolling Average Emission Limits established under Appendix A or B of this Consent Decree.	Not applicable.
h. If applicable, describe the status of actions undertaken pursuant to Section IX (Prohibition on Netting Credits or Offsets from Required Controls) of this Consent Decree.	Not applicable.
i. Describe the status of permit applications and any proposed SIP revisions required under this Consent Decree.	Completed with issuance of permit modification by IDEM dated October 24, 2013.
j. Describe the status of any operation and maintenance work relating to activities required under this Consent Decree.	Not applicable.
Description of any non-compliance with the requirements of this Consent Decree and an explanation of the violation's likely cause and	Not applicable.

Paragraph 49 Reporting Requirements	Essroc's Status Report
of the remedial steps taken, or to be taken, to prevent or minimize such violation.	

F) Nazareth Kiln 1

Requirements:

NOx: Achieve a 30-Day Rolling Average emission limit of 2.30 lb/ton of clinker using SNCR by July 1, 2012.

SO_2: Achieve emission limit no higher than 1.80 lb/ton of clinker using a Dry Scrubber by December 31, 2014.

Status:

Paragraph 49 Reporting Requirements	Essroc's Status Report
a. Identify any and all dates on which Essroc has installed, or describe the progress of installation of, each Control Technology required for each Kiln under Section VI (NO_x Control Technology, Emission Limits, and Monitoring Requirements) and Section VII (SO_2 Control Technology, Emission Limits, and Monitoring Requirements), and describe any problems encountered or anticipated during such installation, together with implemented or proposed solutions.	NOx: SNCR was installed in May 2011, prior to the Effective Date of this Consent Decree. CEMS data provided as Attachment F document that the NOx emission rate is below the agreed-upon limit of 2.30 lb/ton of clinker. SO2: Construction of the Dry Scrubber is planned to meet the December 31, 2014 compliance date.
b. Identify any and all dates on which Essroc has completed installation of, or describe the progress of installation of, each CEMS required under Section VI.B (NO_x Continuous Emission Monitoring Systems) and Section VII.B (SO_2 Continuous Emission Monitoring Systems), and describe any problems encountered or anticipated during such installation, together with implemented or proposed solutions.	CEMS installation was completed prior to the Effective Date of the Consent Decree. CEMS data are provided as Attachment F.
c. Identify any and all dates on which Essroc Retired the Bessemer Kilns.	Not applicable.
d. Provide all CEMS data collected for each Kiln, including an explanation of any periods of CEMS downtime together with any missing data for which Essroc applied missing data substitution procedures, under Section VI.B (NO_x Continuous Emission Monitoring	See Attachment F for the CEMS data.

Paragraph 49 Reporting Requirements	Essroc's Status Report
Systems) and Section VII.B (SO_2 Continuous Emission Monitoring Systems).	
e. Demonstrate compliance with all applicable 30- Day Rolling Average Emission Limits in Section VI (NO_x Control Technology, Emission Limits, and Monitoring Requirements) and Section VII (SO_2 Control Technology, Emission Limits, and Monitoring Requirements) of this Consent Decree.	Data provided in Attachment F demonstrates that the 30-day rolling average Emission Rate is below 2.30 lb/ton of clinker limit.
f. Provide a complete description and status of all actions Essroc has undertaken to comply with the Appendix of this Consent Decree Appendix A: Not applicable. Appendix B: Not applicable. Appendix C: Nazareth mitigation project:	 Appendix A and B: Not applicable. Appendix C: The Nazareth mitigation project was completed on May 31, 2012 as reported in previous semi-annual reports.
g. Demonstrate compliance with any applicable 30-Day Rolling Average Emission Limits established under Appendix A or B of this Consent Decree.	Not applicable.
h. If applicable, describe the status of actions undertaken pursuant to Section IX (Prohibition on Netting Credits or Offsets from Required Controls) of this Consent Decree.	Not applicable.
i. Describe the status of permit applications and any proposed SIP revisions required under this Consent Decree.	Completed for the SNCR. To be completed for the Dry Scrubber on or before December 31, 2015 (one year after installation of the control device).
j. Describe the status of any operation and maintenance work relating to activities required under this Consent Decree.	Not applicable.
Description of any non-compliance with the requirements of this Consent Decree and an explanation of the violation's likely cause and of the remedial steps taken, or to be taken, to	Not applicable.

Paragraph 49 Reporting Requirements	Essroc's Status Report
prevent or minimize such violation.	

G) San Juan Kiln 3

Requirements:

NOx: Install SNCR by December 31, 2013. Emission limit to be established by Test & Set and shall be no higher than 2.30 lb/ton of clinker.

SO_2 :Achieve emission limit no higher than 1.00 lb/ton of clinker using a Dry Scrubber by December 31, 2013.

Status:

Paragraph 49 Reporting Requirements	Essroc's Status Report
a. Identify any and all dates on which Essroc has installed, or describe the progress of installation of, each **Control Technology** required for each Kiln under Section VI (NO_x Control Technology, Emission Limits, and Monitoring Requirements) and Section VII (SO_2 Control Technology, Emission Limits, and Monitoring Requirements), and describe any problems encountered or anticipated during such installation, together with implemented or proposed solutions.	On January 17, 2014, the kiln started with the SNCR and Dry Scrubber in operation.
b. Identify any and all dates on which Essroc has completed installation of, or describe the progress of installation of, each **CEMS** required under Section VI.B (NO_x Continuous Emission Monitoring Systems) and Section VII.B (SO_2 Continuous Emission Monitoring Systems), and describe any problems encountered or anticipated during such installation, together with implemented or proposed solutions.	CEMS installation was completed prior to the Effective Date of the Consent Decree. Attachment G provides the NOx and SO_2 CEMS data.
c. Identify any and all dates on which Essroc Retired the Bessemer Kilns.	Not applicable to San Juan.
d. Provide all CEMS data collected for each Kiln, including an explanation of any periods of CEMS downtime together with any missing data for which Essroc applied missing data substitution procedures, under Section VI.B (NO_x Continuous Emission Monitoring Systems) and Section VII.B (SO_2 Continuous	See Attachment G.

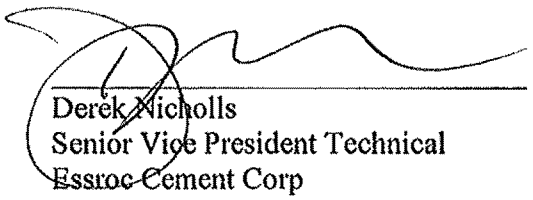
Paragraph 49 Reporting Requirements	Essroc's Status Report
Emission Monitoring Systems).	
e. Demonstrate compliance with all applicable 30- Day Rolling Average Emission Limits in Section VI (NO_x Control Technology, Emission Limits, and Monitoring Requirements) and Section VII (SO_2 Control Technology, Emission Limits, and Monitoring Requirements) of this Consent Decree.	In May 2014, Essroc upgraded the CEMS system to the CEMLink 6 program. Data reported in Attachment G is undergoing additional quality assurance checks by Essroc and its contractor, VIM to remove any bias created by the system upgrade. Essroc will submit a report to EPA summarizing the evaluation and necessary modifications to the reported emission rates.
f. Provide a complete description and status of all actions Essroc has undertaken to comply with the Appendix of this Consent Decree: Appendix A: Test & Set for NOx: Baseline Data Collection: Must start at least 180 days prior to start-up of equipment, unless other period approved by EPA. Baseline Data Collection must include full range of normal kiln operations including changes in raw mix chemistry due to differing clinker manufacture, changes in production levels. Collect data for **180 days**, or other time period if approved by EPA. Baseline Data Report: Submit Baseline Data Report (within **45 days** of completing the Baseline Data Collection)(App A, Para 7) Optimization Protocol: Submit Optimization Protocol to EPA by at least **9/30/13** for approval. (Not less than 90 days prior to the commencement of optimization) (requirements for the protocol are found in App A, Para 11). Continuous Operation: by December 31, 2013. Optimization Period: Conduct in accordance with the Optimization Protocol. Shall last no longer than 150 operating days. Optimization Report : Submit a report to EPA	Appendix A: Test & Set for NOx: Design Report: EPA and Puerto Rico EQB approved the Design Report on August 7, 2013. Baseline Data Report: Essroc submitted the Baseline Data Report on October 17, 2013. Optimization Protocol: Essroc submitted the Optimization Protocol to EPA on October 17, 2013. Continuous Operation: The SNCR went into shakedown period on January 17, 2014. The shakedown period will last no more than 90 Operating Days. The shakedown period concluded on May 19, 2014. Optimization Period: The first of the three molar ratio tests started on May 20, 2014. The kiln was down from May 21 until May 31, 2014. The molar ratio test continued on May 31. The kiln was down from June 1 to June 29. The kiln started again on June 30, 2014 with continuation of the first test. The ammonia

Paragraph 49 Reporting Requirements	Essroc's Status Report
within 30 days following completion of the Optimization Period. Demonstration Period : To commence 7 days after Essroc receives EPA's approval of the final Optimization Report. Demonstration shall last 300 Operating Days. Periodic report to EPA every 3 months. Demonstration Report : To be submitted within 60 days of completing the Demonstration Period. Report must propose the 30-Day Rolling Average Emission Limit. EPA can approve the proposed limit or can establish an alternative limit. Essroc can invoke Dispute Resolution if it disagrees with the alternative limit, see Para 74 of the Consent Decree. Appendix B. Not applicable. Appendix C. Not applicable.	flowrate for the first test was calculated using the previously-determined baseline emission rate of 111 lbs NOx / hr. This equated to an ammonia injection rate of 21gallons/hr (0.35 gallons per minute). Ammonia was injected via one lance installed at the exit of the Calciner. The actual, uncontrolled NOx emission rate during the first test was calculated to be 99.5 lbs / hr. Thus, the actual molar ratio was calculated to be 0.85 for this first test. Testing at the other molar ratios will continue during kiln operations. Optimization Report: To follow. Demonstration Period: To follow. Demonstration Report: To follow.
g. Demonstrate compliance with any applicable 30-Day Rolling Average Emission Limits established under Appendix A or B of this Consent Decree.	See Attachment G for the compliance demonstration with the SO_2 emission limit. Note, data reported in Attachment G is undergoing additional evaluation. In process for NOx.
h. If applicable, describe the status of actions undertaken pursuant to Section IX (Prohibition on Netting Credits or Offsets from Required Controls) of this Consent Decree.	Not applicable.
i. Describe the status of permit applications and any proposed SIP revisions required under this Consent Decree.	To be implemented at a future date.

Paragraph 49 Reporting Requirements	Essroc's Status Report
j. Describe the status of any operation and maintenance work relating to activities required under this Consent Decree.	Not applicable.
Description of any non-compliance with the requirements of this Consent Decree and an explanation of the violation's likely cause and of the remedial steps taken, or to be taken, to prevent or minimize such violation.	The previous semi-annual report advised that the kiln operated on January 8 through 10, 2014, prior to the complete installation and operation of the control devices. The kiln was shutdown on January 10, 2014. Essroc advised EPA and Puerto Rico EQG of the non-compliance by letter dated January 14, 2014. On January 17, 2014, the kiln started with the SNCR and Dry Scrubber in operation.

III. Responsible Official Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



Derek Nicholls
Senior Vice President Technical
Essroc Cement Corp

Attachment A

CEMS Data For Martinsburg Kiln 1

Kiln down: January 1 through 8, 29 and 30, February 2, 3, 16, 19 through 26, March 17 through April 6, April 12 and 25, and June 21 through 24.

	NOx	SO2
Date	lbs/ton clinker, 30-day Rolling Avg (Limit: 2.15)	lbs/ton clinker, 30-day Rolling Avg (Limit: 1.50)
1/9/2014	1.51	1.04
1/10/2014	1.48	1.02
1/11/2014	1.48	0.98
1/12/2014	1.45	0.93
1/13/2014	1.46	0.92
1/14/2014	1.46	0.96
1/15/2014	1.42	1.00
1/16/2014	1.37	1.00
1/17/2014	1.34	1.02
1/18/2014	1.30	1.09
1/19/2014	1.26	1.11
1/20/2014	1.23	1.11
1/21/2014	1.22	1.06
1/22/2014	1.24	1.07
1/23/2014	1.26	1.06
1/24/2014	1.27	1.07
1/25/2014	1.29	1.13
1/26/2014	1.31	1.19
1/27/2014	1.35	1.28
1/28/2014	1.35	1.34
1/31/2014	1.38	1.42
2/1/2014	1.36	1.41
2/4/2014	1.40	1.44
2/5/2014	1.43	1.47
2/6/2014	1.46	1.49
2/7/2014	1.49	1.49
2/8/2014	1.52	1.47
2/9/2014	1.54	1.43
2/10/2014	1.54	1.43

2/11/2014	1.53	1.36
2/12/2014	1.55	1.37
2/13/2014	1.58	1.35
2/14/2014	1.59	1.37
2/15/2014	1.63	1.40
2/17/2014	1.67	1.40
2/18/2014	1.71	1.41
2/27/2014	1.81	1.43
2/28/2014	1.85	1.44
3/1/2014	1.87	1.40
3/2/2014	1.90	1.36
3/3/2014	1.91	1.27
3/4/2014	1.90	1.20
3/5/2014	1.87	1.10
3/6/2014	1.85	1.04
3/7/2014	1.83	1.00
3/8/2014	1.82	0.97
3/9/2014	1.78	0.90
3/10/2014	1.77	0.91
3/11/2014	1.77	0.92
3/12/2014	1.78	0.98
3/13/2014	1.76	1.02
3/14/2014	1.73	1.04
3/15/2014	1.71	1.08
3/16/2014	1.71	1.09
4/7/2014	1.71	1.16
4/8/2014	1.71	1.11
4/9/2014	1.72	1.10
4/10/2014	1.74	1.11
4/11/2014	1.73	1.12
4/13/2014	1.74	1.08
4/14/2014	1.75	1.07
4/15/2014	1.75	1.05
4/16/2014	1.76	1.06
4/17/2014	1.76	1.07
4/18/2014	1.76	1.07
4/19/2014	1.77	1.06
4/20/2014	1.79	1.08
4/21/2014	1.80	1.14
4/22/2014	1.81	1.20
4/23/2014	1.82	1.22
4/24/2014	1.83	1.32
4/26/2014	1.87	1.35

4/27/2014	1.88	1.30
4/28/2014	1.90	1.29
4/29/2014	1.92	1.23
4/30/2014	1.92	1.19
5/1/2014	1.94	1.19
5/2/2014	1.96	1.25
5/3/2014	2.00	1.28
5/4/2014	2.02	1.27
5/5/2014	2.02	1.27
5/6/2014	2.01	1.27
5/7/2014	2.00	1.26
5/8/2014	2.01	1.34
5/9/2014	2.02	1.36
5/10/2014	2.04	1.36
5/11/2014	2.03	1.39
5/12/2014	2.02	1.40
5/13/2014	2.01	1.41
5/14/2014	2.01	1.41
5/15/2014	2.00	1.42
5/16/2014	2.00	1.42
5/17/2014	1.99	1.40
5/18/2014	1.98	1.39
5/19/2014	1.97	1.38
5/20/2014	1.96	1.38
5/21/2014	1.95	1.33
5/22/2014	1.94	1.27
5/23/2014	1.93	1.28
5/24/2014	1.96	1.20
5/25/2014	1.96	1.20
5/26/2014	1.97	1.19
5/27/2014	1.97	1.20
5/28/2014	1.96	1.24
5/29/2014	1.97	1.26
5/30/2014	1.97	1.25
5/31/2014	1.99	1.21
6/1/2014	1.97	1.14
6/2/2014	1.95	1.10
6/3/2014	1.94	1.08
6/4/2014	1.94	1.05
6/5/2014	1.94	1.01
6/6/2014	1.93	0.98
6/7/2014	1.91	0.92
6/8/2014	1.89	0.91

6/9/2014	1.86	0.94
6/10/2014	1.86	0.92
6/11/2014	1.87	0.90
6/12/2014	1.87	0.90
6/13/2014	1.88	0.91
6/14/2014	1.88	0.89
6/15/2014	1.88	0.86
6/16/2014	1.88	0.84
6/17/2014	1.89	0.83
6/18/2014	1.89	0.81
6/19/2014	1.91	0.80
6/20/2014	1.94	0.85
6/25/2014	1.96	0.88
6/26/2014	1.93	0.90
6/27/2014	1.93	0.89
6/28/2014	1.92	0.89
6/29/2014	1.91	0.93
6/30/2014	1.91	0.92

Attachment B
CEMS Data For Logansport Kiln 1

Date	SO2 30 day	NOX 30 day
	lbs/sh tn	lbs/sh tn
	Limit = 3.50	
1-Jan-14	No Production	No Production
2-Jan-14	No Production	No Production
3-Jan-14	No Production	No Production
4-Jan-14	No Production	No Production
5-Jan-14	No Production	No Production
6-Jan-14	No Production	No Production
7-Jan-14	No Production	No Production
8-Jan-14	No Production	No Production
9-Jan-14	No Production	No Production
10-Jan-14	No Production	No Production
11-Jan-14	No Production	No Production
12-Jan-14	No Production	No Production
13-Jan-14	No Production	No Production
14-Jan-14	No Production	No Production
15-Jan-14	No Production	No Production
16-Jan-14	No Production	No Production
17-Jan-14	No Production	No Production
18-Jan-14	No Production	No Production
19-Jan-14	No Production	No Production
20-Jan-14	No Production	No Production
21-Jan-14	No Production	No Production
22-Jan-14	No Production	No Production
23-Jan-14	No Production	No Production
24-Jan-14	No Production	No Production
25-Jan-14	No Production	No Production
26-Jan-14	No Production	No Production
27-Jan-14	No Production	No Production
28-Jan-14	No Production	No Production
29-Jan-14	No Production	No Production
30-Jan-14	No Production	No Production
31-Jan-14	1.23	4.36
1-Feb-14	1.26	4.39
2-Feb-14	1.29	4.54
3-Feb-14	1.31	4.55

4-Feb-14	1.33	4.47
5-Feb-14	1.34	4.45
6-Feb-14	1.35	4.40
7-Feb-14	1.34	4.28
8-Feb-14	1.33	4.24
9-Feb-14	1.33	4.25
10-Feb-14	1.33	4.21
11-Feb-14	1.35	4.24
12-Feb-14	1.36	4.20
13-Feb-14	1.36	4.27
14-Feb-14	1.30	4.33
15-Feb-14	1.00	4.42
16-Feb-14	0.84	4.69
17-Feb-14	0.64	4.65
18-Feb-14	0.55	4.78
19-Feb-14	0.29	4.93
20-Feb-14	0.24	4.84
21-Feb-14	0.18	5.02
22-Feb-14	0.19	5.17
23-Feb-14	0.20	5.28
24-Feb-14	0.22	5.33
25-Feb-14	0.24	5.41
26-Feb-14	0.27	5.57
27-Feb-14		5.67

	0.29	
28-Feb-14	0.29	5.72
1-Mar-14	0.29	6.09
2-Mar-14	0.30	6.11
3-Mar-14	0.29	6.21
4-Mar-14	0.27	6.26
5-Mar-14	0.27	6.21
6-Mar-14	0.60	6.43
7-Mar-14	0.95	6.76
8-Mar-14	1.14	6.80
9-Mar-14	1.16	6.93
10-Mar-14	1.17	7.04
11-Mar-14	1.18	7.29
12-Mar-14	1.19	7.55
13-Mar-14	1.19	7.67
14-Mar-14	1.17	7.61
15-Mar-14	1.17	7.74
16-Mar-14	1.17	7.77
17-Mar-14	1.18	7.79
18-Mar-14	1.20	7.74
19-Mar-14	1.20	7.50
20-Mar-14	1.18	7.54
21-Mar-14	1.17	7.39
22-Mar-14	1.14	7.09

23-Mar-14	1.12	6.94
24-Mar-14	1.09	6.61
25-Mar-14	1.07	6.47
26-Mar-14	1.06	6.28
27-Mar-14	1.04	6.26
28-Mar-14	1.02	6.25
29-Mar-14	0.99	6.01
30-Mar-14	0.96	5.85
31-Mar-14	0.96	5.70
1-Apr-14	0.96	5.42
2-Apr-14	0.97	5.45
3-Apr-14	1.00	5.33
4-Apr-14	1.02	5.27
5-Apr-14	1.05	5.24
6-Apr-14	0.75	5.01
7-Apr-14	0.41	4.70
8-Apr-14	0.29	4.70
9-Apr-14	0.37	4.71
10-Apr-14	0.42	4.69
11-Apr-14	0.44	4.56
12-Apr-14	0.46	4.31
13-Apr-14	0.47	4.13
14-Apr-14	0.48	4.04
15-Apr-14		3.91

	0.49	
16-Apr-14	0.49	3.83
17-Apr-14	0.49	3.73
18-Apr-14	0.49	3.69
19-Apr-14	0.49	3.63
20-Apr-14	0.48	3.51
21-Apr-14	0.48	3.39
22-Apr-14	0.47	3.41
23-Apr-14	0.46	3.45
24-Apr-14	0.46	3.51
25-Apr-14	0.47	3.48
26-Apr-14	0.47	3.53
27-Apr-14	0.47	3.41
28-Apr-14	0.46	3.30
29-Apr-14	0.46	3.33
30-Apr-14	0.46	3.35
1-May-14	0.46	3.40
2-May-14	0.45	3.33
3-May-14	0.45	3.29
4-May-14	0.41	3.28
5-May-14	0.41	3.27
6-May-14	0.40	3.23
7-May-14	0.39	3.25
8-May-14	0.39	3.25

9-May-14	0.33	3.24
10-May-14	0.24	3.15
11-May-14	0.20	3.08
12-May-14	0.18	3.04
13-May-14	0.15	3.00
14-May-14	0.13	2.99
15-May-14	0.12	2.97
16-May-14	0.11	2.95
17-May-14	0.11	2.89
18-May-14	0.11	2.89
19-May-14	0.10	2.93
20-May-14	0.10	2.92
21-May-14	0.10	2.94
22-May-14	0.10	3.00
23-May-14	0.11	3.01
24-May-14	0.12	2.98
25-May-14	0.14	2.92
26-May-14	0.14	2.88
27-May-14	0.14	2.87
28-May-14	0.13	2.95
29-May-14	0.14	2.96
30-May-14	0.14	3.01
31-May-14	0.14	3.03
1-Jun-14		2.96

	0.14	
2-Jun-14	No Production	No Production
3-Jun-14	No Production	No Production
4-Jun-14	0.15	2.96
5-Jun-14	0.18	2.93
6-Jun-14	0.18	2.88
7-Jun-14	0.18	2.90
8-Jun-14	0.18	2.93
9-Jun-14	0.16	2.86
10-Jun-14	0.14	2.84
11-Jun-14	0.14	2.78
12-Jun-14	0.14	2.75
13-Jun-14	0.14	2.79
14-Jun-14	0.15	2.85
15-Jun-14	0.15	2.89
16-Jun-14	0.16	2.95
17-Jun-14	0.16	3.01
18-Jun-14	No Production	No Production
19-Jun-14	0.17	3.07
20-Jun-14	0.17	3.12
21-Jun-14	0.17	3.13
22-Jun-14	0.16	3.14
23-Jun-14	0.16	3.21
24-Jun-14	0.16	3.21
25-Jun-14	No Production	No Production
26-Jun-14	No Production	No Production

27-Jun-14	No Production	No Production
28-Jun-14	No Production	No Production
29-Jun-14	No Production	No Production
30-Jun-14	No Production	No Production

Attachment C

CEMS Data For Logansport Kiln 2

Date	SO2 30 day	NOX 30 day
	lbs/sh tn	lbs/sh tn
1-Jan-14	No Production	No Production
2-Jan-14	No Production	No Production
3-Jan-14	No Production	No Production
4-Jan-14	No Production	No Production
5-Jan-14	No Production	No Production
6-Jan-14	No Production	No Production
7-Jan-14	No Production	No Production
8-Jan-14	No Production	No Production
9-Jan-14	No Production	No Production
10-Jan-14	No Production	No Production
11-Jan-14	No Production	No Production
12-Jan-14	No Production	No Production
13-Jan-14	No Production	No Production
14-Jan-14	No Production	No Production
15-Jan-14	No Production	No Production
16-Jan-14	No Production	No Production
17-Jan-14	No Production	No Production
18-Jan-14	No Production	No Production
19-Jan-14	No Production	No Production
20-Jan-14	No Production	No Production
21-Jan-14	No Production	No Production
22-Jan-14	No Production	No Production
23-Jan-14	No Production	No Production
24-Jan-14	No Production	No Production
25-Jan-14	No Production	No Production
26-Jan-14	No Production	No Production
27-Jan-14	No Production	No Production
28-Jan-14	No Production	No Production
29-Jan-14	No Production	No Production
30-Jan-14	No Production	No Production
31-Jan-14	No Production	No Production
1-Feb-14	No Production	No Production
2-Feb-14	No Production	No Production

3-Feb-14	No Production	No Production
4-Feb-14	No Production	No Production
5-Feb-14	No Production	No Production
6-Feb-14	No Production	No Production
7-Feb-14	No Production	No Production
8-Feb-14	No Production	No Production
9-Feb-14	No Production	No Production
10-Feb-14	No Production	No Production
11-Feb-14	No Production	No Production
12-Feb-14	No Production	No Production
13-Feb-14	No Production	No Production
14-Feb-14	No Production	No Production
15-Feb-14	No Production	No Production
16-Feb-14	No Production	No Production
17-Feb-14	No Production	No Production
18-Feb-14	No Production	No Production
19-Feb-14	No Production	No Production
20-Feb-14	No Production	No Production
21-Feb-14	No Production	No Production
22-Feb-14	No Production	No Production
23-Feb-14	No Production	No Production
24-Feb-14	No Production	No Production
25-Feb-14	No Production	No Production
26-Feb-14	No Production	No Production
27-Feb-14	No Production	No Production
28-Feb-14	No Production	No Production
1-Mar-14	No Production	No Production
2-Mar-14	No Production	No Production
3-Mar-14	No Production	No Production
4-Mar-14	No Production	No Production
5-Mar-14	No Production	No Production
6-Mar-14	No Production	No Production
7-Mar-14	No Production	No Production
8-Mar-14	No Production	No Production
9-Mar-14	No Production	No Production
10-Mar-14	No Production	No Production
11-Mar-14	No Production	No Production
12-Mar-14	No Production	No Production
13-Mar-14	No Production	No Production
14-Mar-14	No Production	No Production
15-Mar-14	No Production	No Production
16-Mar-14	No Production	No Production
17-Mar-14	No Production	No Production

18-Mar-14	No Production	No Production
19-Mar-14	No Production	No Production
20-Mar-14	No Production	No Production
21-Mar-14	No Production	No Production
22-Mar-14	No Production	No Production
23-Mar-14	No Production	No Production
24-Mar-14	1.72	3.35
25-Mar-14	2.00	3.26
26-Mar-14	2.41	3.20
27-Mar-14	2.94	3.25
28-Mar-14	3.39	3.25
29-Mar-14	3.77	3.25
30-Mar-14	4.29	3.24
31-Mar-14	4.57	3.30
1-Apr-14	4.96	3.37
2-Apr-14	5.49	3.33
3-Apr-14	5.86	3.32
4-Apr-14	No Production	No Production
5-Apr-14	6.36	3.32
6-Apr-14	6.80	3.36
7-Apr-14	7.09	3.38
8-Apr-14	7.09	3.38
9-Apr-14	7.03	3.36
10-Apr-14	7.29	3.42
11-Apr-14	7.48	3.48
12-Apr-14	7.98	3.51
13-Apr-14	8.13	3.52
14-Apr-14	No Production	No Production
15-Apr-14	No Production	No Production
16-Apr-14	No Production	No Production
17-Apr-14	No Production	No Production
18-Apr-14	No Production	No Production
19-Apr-14	No Production	No Production
20-Apr-14	No Production	No Production
21-Apr-14	No Production	No Production
22-Apr-14	No Production	No Production
23-Apr-14	No Production	No Production
24-Apr-14	No Production	No Production
25-Apr-14	No Production	No Production
26-Apr-14	No Production	No Production
27-Apr-14	No Production	No Production
28-Apr-14	No Production	No Production
29-Apr-14	No Production	No Production

30-Apr-14	No Production	No Production
1-May-14	No Production	No Production
2-May-14	No Production	No Production
3-May-14	No Production	No Production
4-May-14	No Production	No Production
5-May-14	No Production	No Production
6-May-14	No Production	No Production
7-May-14	No Production	No Production
8-May-14	No Production	No Production
9-May-14	No Production	No Production
10-May-14	No Production	No Production
11-May-14	No Production	No Production
12-May-14	No Production	No Production
13-May-14	No Production	No Production
14-May-14	No Production	No Production
15-May-14	No Production	No Production
16-May-14	No Production	No Production
17-May-14	No Production	No Production
18-May-14	No Production	No Production
19-May-14	No Production	No Production
20-May-14	No Production	No Production
21-May-14	No Production	No Production
22-May-14	No Production	No Production
23-May-14	No Production	No Production
24-May-14	No Production	No Production
25-May-14	No Production	No Production
26-May-14	No Production	No Production
27-May-14	No Production	No Production
28-May-14	No Production	No Production
29-May-14	No Production	No Production
30-May-14	No Production	No Production
31-May-14	No Production	No Production
1-Jun-14	No Production	No Production
2-Jun-14	No Production	No Production
3-Jun-14	No Production	No Production
4-Jun-14	No Production	No Production
5-Jun-14	No Production	No Production
6-Jun-14	No Production	No Production
7-Jun-14	No Production	No Production
8-Jun-14	No Production	No Production
9-Jun-14	No Production	No Production
10-Jun-14	No Production	No Production
11-Jun-14	No Production	No Production

12-Jun-14	No Production	No Production
13-Jun-14	No Production	No Production
14-Jun-14	No Production	No Production
15-Jun-14	No Production	No Production
16-Jun-14	No Production	No Production
17-Jun-14	No Production	No Production
18-Jun-14	No Production	No Production
19-Jun-14	No Production	No Production
20-Jun-14	No Production	No Production
21-Jun-14	No Production	No Production
22-Jun-14	No Production	No Production
23-Jun-14	No Production	No Production
24-Jun-14	No Production	No Production
25-Jun-14	No Production	No Production
26-Jun-14	No Production	No Production
27-Jun-14	8.40	3.51
28-Jun-14	8.54	3.46
29-Jun-14	8.54	3.42
29-Jun-14	No Production	No Production

Attachment D

CEMS Data For Speed Kiln 1

Kiln did not operate during this period.

Attachment E

CEMS Data For Speed Kiln 2

	NOx	SO2
Day	lb / ton of clinker, 30-day rolling average	lb / ton of clinker, 30-day rolling average
	(2.10 limit)	(1.70 limit)
1/1/2014	1.96	0.86
1/2/2014	1.96	0.88
1/3/2014	1.97	0.91
1/4/2014	1.99	0.97
1/5/2014	1.99	1.03
1/6/2014	2.00	1.07
1/7/2014	2.03	1.11
1/8/2014	2.01	1.14
1/9/2014	2.01	1.19
1/10/2014	2.03	1.22
1/11/2014	2.04	1.25
1/12/2014	2.04	1.30
1/13/2014	2.03	1.34
1/14/2014	2.01	1.35
1/15/2014	2.02	1.40
1/16/2014	2.01	1.41
1/17/2014	2.01	1.47
1/18/2014	1.98	1.55
1/19/2014	1.98	1.60
1/20/2014	1.98	1.58
1/21/2014	1.97	1.55
1/22/2014	1.97	1.53
1/23/2014	2.01	1.53
1/24/2014	2.07	1.53
1/25/2014	2.09	1.51
1/26/2014	2.09	1.48
1/27/2014	2.09	1.47
1/28/2014	2.08	1.46
1/29/2014	2.08	1.44

1/30/2014	2.07	1.44
1/31/2014	2.01	1.51
2/1/2014	1.99	1.59
2/2/2014	1.96	1.59
2/3/2014	1.95	1.52
2/4/2014	1.95	1.46
2/5/2014	1.93	1.41
2/6/2014	1.89	1.39
2/7/2014	1.89	1.38
2/8/2014	1.89	1.38
2/9/2014	1.88	1.42
2/10/2014	1.88	1.43
2/11/2014	1.88	1.41
2/12/2014	1.90	1.45
2/13/2014	1.90	1.53
2/14/2014	1.86	1.54
2/15/2014	1.85	1.55
2/16/2014	1.86	1.50
2/17/2014	1.88	1.46
2/18/2014	1.86	1.48
2/19/2014	1.85	1.54
2/20/2014	1.84	1.54
2/21/2014	1.83	1.53
2/22/2014	1.81	1.50
2/23/2014	1.77	1.47
2/24/2014	1.75	1.50
2/25/2014	1.74	1.49
2/26/2014	1.74	1.49
2/27/2014	1.73	1.52
2/28/2014	1.73	1.52
3/1/2014	1.75	1.52
3/2/2014	1.78	1.42
3/3/2014	1.79	1.36
3/4/2014	1.82	1.35
3/5/2014	1.83	1.39
3/6/2014	1.82	1.44
3/7/2014	1.83	1.43
3/8/2014	1.84	1.43
3/9/2014	1.84	1.43
3/10/2014	1.84	1.43

3/11/2014	1.84	1.43
3/12/2014	1.84	1.43
3/13/2014	1.84	1.43
3/14/2014	1.84	1.43
3/15/2014	1.84	1.43
3/16/2014	1.84	1.43
3/17/2014	1.84	1.43
3/18/2014	1.84	1.43
3/19/2014	1.84	1.43
3/20/2014	1.84	1.43
3/21/2014	1.84	1.43
3/22/2014	1.84	1.43
3/23/2014	1.84	1.43
3/24/2014	1.84	1.43
3/25/2014	1.84	1.43
3/26/2014	1.84	1.43
3/27/2014	1.84	1.43
3/28/2014	1.84	1.43
3/29/2014	1.84	1.43
3/30/2014	1.84	1.43
3/31/2014	1.84	1.43
4/1/2014	1.84	1.43
4/2/2014	1.84	1.43
4/3/2014	1.83	1.43
4/4/2014	1.87	1.41
4/5/2014	1.87	1.39
4/6/2014	1.87	1.40
4/7/2014	1.87	1.33
4/8/2014	1.88	1.27
4/9/2014	1.91	1.24
4/10/2014	1.92	1.24
4/11/2014	1.91	1.29
4/12/2014	1.91	1.32
4/13/2014	1.92	1.31
4/14/2014	1.92	1.32
4/15/2014	1.94	1.38
4/16/2014	1.96	1.45
4/17/2014	1.96	1.51
4/18/2014	1.96	1.51
4/19/2014	1.96	1.50

4/20/2014	1.96	1.51
4/21/2014	1.96	1.48
4/22/2014	1.98	1.46
4/23/2014	1.98	1.46
4/24/2014	1.98	1.45
4/25/2014	1.97	1.50
4/26/2014	1.97	1.50
4/27/2014	1.94	1.52
4/28/2014	1.94	1.52
4/29/2014	1.96	1.50
4/30/2014	1.95	1.50
5/1/2014	1.96	1.50
5/2/2014	1.95	1.50
5/3/2014	1.94	1.48
5/4/2014	1.91	1.43
5/5/2014	1.90	1.45
5/6/2014	1.89	1.44
5/7/2014	1.89	1.46
5/8/2014	1.89	1.44
5/9/2014	1.88	1.47
5/10/2014	1.87	1.47
5/11/2014	1.86	1.50
5/12/2014	1.86	1.51
5/13/2014	1.85	1.48
5/14/2014	1.84	1.45
5/15/2014	1.85	1.45
5/16/2014	1.86	1.41
5/17/2014	1.86	1.37
5/18/2014	1.86	1.40
5/19/2014	1.85	1.40
5/20/2014	1.86	1.44
5/21/2014	1.86	1.47
5/22/2014	1.85	1.49
5/23/2014	1.85	1.51
5/24/2014	1.85	1.53
5/25/2014	1.85	1.53
5/26/2014	1.83	1.55
5/27/2014	1.84	1.53
5/28/2014	1.83	1.53
5/29/2014	1.82	1.52

5/30/2014	1.81	1.53
5/31/2014	1.81	1.53
6/1/2014	1.82	1.51
6/2/2014	1.82	1.53
6/3/2014	1.81	1.57
6/4/2014	1.79	1.57
6/5/2014	1.79	1.57
6/6/2014	1.78	1.56
6/7/2014	1.77	1.56
6/8/2014	1.76	1.53
6/9/2014	1.75	1.53
6/10/2014	1.74	1.50
6/11/2014	1.74	1.46
6/12/2014	1.75	1.47
6/13/2014	1.75	1.48
6/14/2014	1.75	1.48
6/15/2014	1.75	1.48
6/16/2014	1.75	1.48
6/17/2014	1.75	1.48
6/18/2014	1.74	1.47
6/19/2014	1.73	1.46
6/20/2014	1.72	1.45
6/21/2014	1.72	1.43
6/22/2014	1.72	1.42
6/23/2014	1.72	1.38
6/24/2014	1.73	1.35
6/25/2014	1.74	1.33
6/26/2014	1.76	1.35
6/27/2014	1.76	1.33
6/28/2014	1.76	1.32
6/29/2014	1.79	1.30
6/30/2014	1.79	1.31

Attachment F

CEMS Data For Nazareth Kiln 1

Kiln did not operate January 1 through February 22, March 8, May 16, May 29 through 31, and June 17 through 20.

	NOx	SO_2
Date	lb / ton of clinker, 30-day rolling average (limit: 2.3)	lb / ton of clinker, 30-day rolling average (limit: 1.8)
23-Feb	2.18	1.48
25-Feb	2.20	1.49
26-Feb	2.21	1.50
27-Feb	2.22	1.51
28-Feb	2.24	1.44
1-Mar	2.28	1.37
2-Mar	2.29	1.29
3-Mar	2.29	1.25
4-Mar	2.23	1.20
5-Mar	2.17	1.16
6-Mar	2.17	1.16
7-Mar	2.14	1.15
9-Mar	2.09	1.14
10-Mar	2.10	1.15
11-Mar	2.11	1.10
12-Mar	2.06	1.13
13-Mar	2.06	1.17
14-Mar	2.03	1.20
15-Mar	2.07	1.25
16-Mar	2.07	1.30
17-Mar	2.08	1.33
18-Mar	2.09	1.39

19-Mar	2.10	1.41
20-Mar	2.11	1.40
21-Mar	2.08	1.37
22-Mar	2.05	1.36
23-Mar	2.05	1.34
24-Mar	2.06	1.32
25-Mar	2.06	1.33
26-Mar	2.07	1.35
27-Mar	2.08	1.34
28-Mar	2.09	1.33
29-Mar	2.09	1.30
30-Mar	2.10	1.30
31-Mar	2.09	1.28
1-Apr	2.08	1.26
2-Apr	2.08	1.25
3-Apr	2.09	1.25
4-Apr	2.11	1.27
5-Apr	2.15	1.29
6-Apr	2.15	1.30
7-Apr	2.17	1.30
8-Apr	2.15	1.31
9-Apr	2.13	1.29
10-Apr	2.12	1.27
11-Apr	2.12	1.24
12-Apr	2.12	1.22
13-Apr	2.13	1.21
14-Apr	2.11	1.20
15-Apr	2.10	1.17
16-Apr	2.10	1.14
17-Apr	2.10	1.07
18-Apr	2.10	1.03
19-Apr	2.10	1.00
20-Apr	2.10	0.98
21-Apr	2.10	0.96
22-Apr	2.09	0.97
23-Apr	2.09	0.99
24-Apr	2.08	0.97
25-Apr	2.08	0.97
26-Apr	2.08	0.98
27-Apr	2.08	1.02

28-Apr	2.08	1.07
29-Apr	2.07	1.10
30-Apr	2.07	1.10
1-May	2.06	1.10
2-May	2.06	1.10
3-May	2.05	1.09
4-May	2.05	1.07
5-May	2.05	1.06
6-May	2.05	1.04
7-May	2.05	1.01
8-May	2.06	0.99
9-May	2.06	0.99
10-May	2.07	1.00
11-May	2.07	0.99
12-May	2.09	0.97
13-May	2.10	0.94
14-May	2.10	0.91
15-May	2.10	0.91
17-May	2.11	0.90
18-May	2.12	0.87
19-May	2.15	0.84
20-May	2.16	0.82
21-May	2.17	0.80
22-May	2.18	0.80
23-May	2.19	0.80
24-May	2.19	0.75
25-May	2.19	0.76
26-May	2.21	0.72
27-May	2.20	0.69
28-May	2.19	0.63
1-Jun	2.22	0.57
2-Jun	2.23	0.52
3-Jun	2.22	0.55
4-Jun	2.21	0.59
5-Jun	2.21	0.63
6-Jun	2.19	0.66
7-Jun	2.20	0.67
8-Jun	2.20	0.67
9-Jun	2.20	0.69
10-Jun	2.20	0.72

11-Jun	2.21	0.74
12-Jun	2.21	0.75
13-Jun	2.18	0.76
14-Jun	2.15	0.80
15-Jun	2.11	0.85
16-Jun	2.08	0.92
18-Jun	2.09	0.95
19-Jun	2.09	0.98
21-Jun	2.10	0.99
22-Jun	2.08	1.03
23-Jun	2.07	1.11
24-Jun	2.09	1.18
25-Jun	2.09	1.20
26-Jun	2.09	1.20
27-Jun	2.10	1.19
28-Jun	2.11	1.17
29-Jun	2.11	1.15
30-Jun	2.11	1.16

Attachment G

CEMS Data For San Juan Kiln 3

NOTE: CEMS data is under further evaluation, see text for additional discussion.

DATE	CLINKER TON	NOX LB	SO2 LB		30 Day Rolling NOX	30 Day Rolling SOX
8-Jan	0	0.0	0.0		NA	NA
9-Jan	0	0.0	0.0		NA	NA
10-Jan	71.65015	492.3	63.3		NA	NA
17-Jan	0	0.0	0.0		NA	NA
18-Jan	42.99009	0.0	0.0		NA	NA
19-Jan	1127.663	6163.4	2622.5		NA	NA
20-Jan	1345.921	2456.9	2.8		NA	NA
21-Jan	1332.693	2411.8	-6.0		NA	NA
22-Jan	1293.01	2678.0	-6.9		NA	NA
23-Jan	792.5609	3263.3	737.6		NA	NA
24-Jan	419.9801	866.1	-1.8		NA	NA
25-Jan	1490.323	2411.5	-3.7		NA	NA
26-Jan	1251.122	2048.0	-5.2		NA	NA
27-Jan	630.5213	552.1	-0.4		NA	NA
28-Jan	1927.94	2304.1	15.1		NA	NA
29-Jan	1248.917	2380.2	54.9		NA	NA
30-Jan	1905.894	3155.1	12.8		NA	NA
31-Jan	1996.283	3181.6	6.4		NA	NA
1-Feb	1953.293	2947.3	-6.4		NA	NA
2-Feb	339.5115	410.1	4.6		NA	NA
3-Feb	1652.363	2833.8	3.9		NA	NA
4-Feb	1881.643	3076.5	-6.2		NA	NA
5-Feb	1967.623	3851.1	182.3		NA	NA
6-Feb	2010.613	3149.4	81.4		NA	NA
7-Feb	2006.204	3252.9	-6.7		NA	NA
8-Feb	2016.125	3028.5	-1.8		NA	NA
9-Feb	1973.135	3690.9	12.9		NA	NA
10-Feb	1704.171	3425.9	72.0		NA	NA
11-Feb	1763.696	3361.4	-5.8		NA	NA
12-Feb	835.551	1504.8	-1.9		NA	NA
13-Feb	1828.732	3247.4	41.2		NA	NA
14-Feb	1935.656	2231.2	22.4		NA	NA
15-Feb	1375.683	2715.0	16.7		1.83	0.09
16-Feb	0	0.0	0.0			

17-Feb	0	0.0	0.0			
18-Feb	362.66	520.3	-0.2		1.82	0.09
19-Feb	1905.894	3348.0	-6.8		1.82	0.09
20-Feb	1996.283	4050.1	3.8		1.74	0.03
21-Feb	1781.333	11404.5	4763.0		1.92	0.13
22-Feb	1776.924	3432.5	97.0		1.92	0.13
23-Feb	769.4124	1524.8	2.0		1.92	0.13
19-Mar	0	0.0	0.0			
20-Mar	5.51155	29.2	29.8		1.88	0.12
21-Mar	419.9801	606.2	260.3		1.87	0.13
22-Mar	601.8613	187.9	13.5		1.86	0.13
23-Mar	616.1913	38.2	13.7		1.84	0.13
24-Mar	1423.082	2640.1	1183.3		1.85	0.16
25-Mar	1793.458	2071.6	43.5		1.85	0.16
26-Mar	1729.524	1012.8	446.9		1.80	0.16
27-Mar	1824.323	6218.5	1601.1		1.88	0.20
28-Mar	1313.954	2443.0	189.6		1.89	0.21
29-Mar	1193.802	1744.8	363.1		1.89	0.22
30-Mar	1595.043	2795.7	-4.9		1.89	0.21
31-Mar	1676.614	2569.7	-4.5		1.89	0.21
1-Apr	1858.495	2859.9	31.2		1.88	0.21
2-Apr	878.5331	1218.0	69.1		1.87	0.22
3-Apr	444.2269	710.0	70.8		1.88	0.22
4-Apr	1056.003	1770.4	14.6		1.89	0.23
5-Apr	1676.598	2349.7	-4.6		1.89	0.23
6-Apr	1614.87	2505.0	-4.3		1.87	0.23
7-Apr	1977.526	2418.9	-4.4		1.84	0.23
8-Apr	2073.426	2271.5	-3.3		1.80	0.23
9-Apr	1547.629	1720.3	0.4		1.77	0.23
10-Apr	391.3165	1865.6	831.9		1.80	0.25
10-May	0	0.0	0.0			
11-May	0	0.0	0.0			
12-May	0	0.0	0.0			
13-May	210.5412	8522.9	4308.9		2.05	0.38
14-May	1160.732	13466.6	5619.8		2.34	0.53
15-May	1366.864	6353.3	1532.8		2.43	0.55
16-May	1728.422	5558.6	878.0		2.50	0.58
17-May	1787.947	5487.6	1255.1		2.55	0.62
18-May	1848.574	5909.4	1092.8		2.41	0.52
19-May	1744.957	5549.1	1090.7		2.46	0.55
20-May	1057.115	3444.1	1148.6		2.49	0.57
21-May	2069.036	7308.9	3345.5		2.55	0.62
22-May	2087.775	30096.0	2096.6		3.14	0.64

23-May	1724.013	22616.9	3295.0		3.58	0.70
24-May	2087.775	4824.6	1124.6		3.57	0.70
25-May	2102.105	5232.6	1159.9		3.57	0.69
26-May	2099.901	5137.2	1254.2		3.61	0.71
27-May	2105.412	4864.0	1394.2		3.67	0.73
28-May	1844.165	4157.4	1166.5		3.62	0.72
29-May	1289.703	4014.1	1207.4		3.66	0.74
30-May	911.6104	2363.3	679.1		3.69	0.75
31-May	1823.221	5051.3	1296.5		3.72	0.78
30-Jun	110.231	13859.7	7007.0		4.11	0.96